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30 June 2016

PROJECT NO.

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**PROJECT NAME** 

McConnell AFB Performance Based Remediation

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**SUBJECT** 

**Draft Facility-Wide Institutional Control Implementation Plan** 

**McConnell AFB Performance Based Remediation** 

Contract No. W9128F-13-C-0022

#### **ENCLOSURES**

Item	Description
1	Draft Facility-Wide Institutional Control Implementation Plan

#### SUBMITTED FOR YOUR

$\boxtimes$	Review	Information
	Approval	Signature

#### **REMARKS**

Please provide comments on the subject document no later than 31 August 2016.

RCRA

**RECEIVED** 

JUL 0 5 2016

AWMD/RCAP

# FACILITY-WIDE INSTITUTIONAL CONTROL IMPLEMENTATION PLAN

# MCCONNELL AIR FORCE BASE, KANSAS PERFORMANCE BASED REMEDIATION



June 2016









#### **DRAFT**

# FACILITY-WIDE INSTITUTIONAL CONTROL IMPLEMENTATION PLAN PERFORMANCE BASED REMEDIATION MCCONNELL AIR FORCE BASE, KANSAS

June 30, 2016

Prepared for:



United States Army Corps of Engineers Contract W9128F-13-C-0022



Air Force Civil Engineer Center



Prepared by:



#### DISCLAIMER

Although the enclosed report is branded as a URS document, it is a revised version of a report previously prepared by Tetra Tech, Inc. (initial report dated 7 July 2010 and modified 12 April 2013). Revisions were made to the report by URS based on recent investigations revealing changes to the extents of contaminant plumes at certain sites. These changes warranted revisions to Institutional Control boundaries. The revisions have been incorporated herein. The report's content remains largely the effort of Tetra Tech, Inc. but contains revisions made by URS to address the changes. As such, the opinions or recommendations rendered in the enclosed report do not necessarily reflect those of URS. Furthermore, URS does not necessarily concur with nor claim responsibility for the methods or procedures used by Tetra Tech, Inc. to collect and present data contained in the enclosed report.

#### WING COMMANDER'S APPROVAL

### MCCONNELL AIR FORCE BASE FACILITY-WIDE INSTITUTIONAL CONTROL IMPLEMENTATION PLAN

As the McConnell Air Force Base (MAFB) Wing Commander, I am aware of Installation Restoration Program properties on base where the concentration of soil and groundwater contamination does not allow for unlimited use and unrestricted exposure. Per requirements in the MAFB Resource Conservation and Recovery Act Part II Permit, the base has written an Institutional Control Implementation Plan (ICIP) entitled *Facility-Wide Institutional Control Implementation Plan*. I have reviewed the ICIP document and approve the plan for MAFB.

Albert Miller, Colonel, USAF

22 Air Refueling Wing

McConnell AFB, KS

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#### **ACRONYMS**

AOC Area of Concern

BTEX benzene, toluene, ethylbenzene, and xylene

CEAN Asset Management Environmental Element

CES Civil Engineer Squadron
CMS Corrective Measures Study

DCE dichloroethene

DRO diesel range organics

FB Facilities Board FT Fire Training

GIS Geographic Information System

GRO gasoline range organics GW groundwater contamination

HSWA Hazardous and Solid Waste Amendment

IC(s) Institutional Control(s)

ICIP Institutional Control Implementation Plan

IDP Installation Development Plan IRP Installation Restoration Program

IU industrial use

KANG Kansas Air National Guard

KDHE Kansas Department of Health and Environment

LF Landfill

LTM Long Term Monitoring

MAFB McConnell Air Force Base

MMRP Military Munitions Response Program

MSA Munitions Storage Area MTBE methyl tert butyl ether

OWS(s) oil-water separator(s)

PCE tetrachloroethene

POC point of contact

POL Petroleum, Oil, Lubricant

RCRA Resource Conservation and Recovery Act

RFI RCRA Facility Investigation

ROD Record of Decision

SO soil contamination

SS Spill Site

SVOC semivolatile organic compound SWMU Solid Waste Management Unit

TCE trichloroethene

TPH Total Petroleum Hydrocarbons

USAF United States Air Force

USEPA United States Environmental Protection Agency

UST Underground Storage Tank

VOC(s) volatile organic compound(s)

WORB Work Order Review Board

#### 1.0 INTRODUCTION

This document serves as the Facility-Wide Institutional Control Implementation Plan (ICIP) for McConnell Air Force Base (MAFB). Procedures described in this document comply with the ICIP requirements defined in Permit Condition II.17.2 of the United States Environmental Protection Agency (USEPA) Final Hazardous and Solid Waste Amendment (HSWA) Part II Resource Conservation and Recovery Act (RCRA) Permit (Identification Number KS1571924140, August 2007).

This ICIP describes procedures for the implementation, management, and monitoring of Institutional Controls (ICs) at MAFB. The objective of this document is to provide procedures to manage ICs for MAFB Installation Restoration Program (IRP) sites, Solid Waste Management Units (SWMU), and Areas of Concern (AOCs) identified in Permit Condition II.2.1, and other SWMU and AOC sites identified in the future for which decision documents will be prepared. Eventually, all contaminated sites (including IRP, SWMU, and AOC sites) will be incorporated into the ICIP where decision documents require ICs for long-term remedies established to protect human health and the environment. ICs are non-engineering instruments, such as administrative and legal controls, that help to reduce the potential for human exposure to contamination or protect the integrity of a remedy. ICs are used when residual contamination remains at a level that does not allow for unlimited use and unrestricted exposure after the final remedy has been implemented (Condition II.17.1 of MAFB RCRA Part II Permit).

MAFB is in the process of revising the Base Master Plan, which is now referred to by the United States Air Force (USAF) as the Installation Development Plan (IDP). The IDP will be an internal USAF website that will consist of a series of modules (folders) containing documents dealing with specific planning issues. Per requirements in the MAFB HSWA Part II Permit Condition II.17.3, the ICIP will be included on the IDP website. In addition, the ICIP will be discussed within the IDP, in the Planning Considerations – Environmental Constraints section.

#### The ICIP document addresses:

- Sites where the concentration of residual contamination does not allow for unrestricted property usage;
- ICIP land use restrictions on IRP properties;
- IRP Property Land Use Classification(s) (e.g., Industrial, Outdoor Recreational, Housing, etc.);
- IRP property construction activity protocol (work orders/environmental reviews);
- Consequences of violating present and future IRP property use restrictions; and
- Responsible party ensuring that IRP properties are being used as specified in the ICIP document (Asset Management Environmental Element).

ICs are established at MAFB contaminated sites to reduce or eliminate the following environmental risks to base receptors which may cause harm to human health or the environment:

- 1. Exposure to contaminated soil through either ingestion, inhalation of particulates, or dermal contact.
- 2. Exposure to contaminated groundwater through either ingestion or dermal contact.
- 3. Exposure to vapors released from impacted soils or groundwater.

#### 2.0 INSTITUTIONAL CONTROL PLANNING AT MAFB

#### 2.1 McConnell Air Force Base Description

MAFB is located in Sedgwick County in southern Kansas, adjacent to the southeastern boundary of Wichita, Kansas. MAFB occupies approximately 3,600 acres of government-owned and easement land (about 2,700 government-owned acres and the remainder leased or controlled by easement). Agricultural land transitioning to residential and commercial usage borders MAFB to the east and south, while industrial facilities border the north and west. In 1952, the USAF purchased MAFB from the City of Wichita, Kansas.

MAFB was originally established in 1941 as a Kansas Air Guard facility at the Wichita Municipal Airport. MAFB was activated in 1951 when Air Training Command began conducting B-47 combat crew training. The base was originally named the Wichita Air Force Base in May 1953 but was renamed McConnell Air Force Base less than a year later in honor of Wichita war hero brothers Fred and Thomas McConnell. Since 1951, MAFB has operated as a training and missile support facility and as a base for USAF strategic, tactical, and refueling operations. Currently, the 22nd Air Refueling Wing supports, flies, and maintains the KC-135R "Stratotanker" at MAFB. The KC-135R provides air-refueling operations worldwide for the United States and its allies.

#### 2.2 Installation Restoration Program

To ensure compliance with USEPA regulations under the RCRA and the Comprehensive Environmental Response, Compensation, and Liability Act, the Department of Defense developed the IRP within the Defense Environmental Restoration Program. The IRP is concerned with the identification, investigation, research and development, and cleanup of contamination from hazardous substances, pollutants, and contaminants.

In 1993, MAFB received a Part II RCRA permit which required the environmental investigation of suspected contaminated sites. In 2007, MAFB received a RCRA permit renewal (HSWA Part II Permit; USEPA RCRA ID No. KS1571924140) which includes permit conditions regarding ICs (USEPA 2007).

ICs have been adopted at the IRP sites either as a component of the remedy or adopted prior to completion of investigations or development of the remedy to restrict access to known or suspected contamination. Figure 2-1 shows IC sites at MAFB. Appendix A summarizes information regarding the IRP sites where ICs were selected as a component of the remedy or are otherwise temporarily imposed. Figures A-1 through A-22 show IC site locations, boundaries, and corner coordinates. Pending regulatory approval of the final remedy at each IC site, MAFB has implemented ICs on an interim basis at sites where contamination remains at a level that does not allow unlimited use and unrestricted exposure. The interim ICs will remain in place until a final remedy is approved by environmental regulatory agencies [USEPA and Kansas Department of Health and the Environment (KDHE)].

As investigations and decision documents are completed and finalized, Appendix A will be updated to include modifications, deletions, or additions to ICs based on the remedy selected. ICs will be maintained for each site for as long as necessary to keep land use fully protective of human health and the environment.

MAFB is currently and will likely continue to be a multi-use facility with industrial, recreational, and residential land uses. Future site remedy decisions will evaluate the current and most probable future land use and the need for ICs at each of the IRP sites.

#### 2.3 Land Use Planning Process

The IDP is the primary mechanism for facility-wide planning that identifies specific land uses at MAFB. The components of the land use planning process at MAFB include the base IDP and the Facilities Board (FB). The FB is another mechanism that governs land use associated with new construction activities at MAFB.

The tools used for land use notifications to 22 CES (Civil Engineer Squadron)/CEAN (Asset Management Environmental Element) includes Form 332 (Work Order Request) for the Work Order Review Board (WORB), AF Form 813 (Request for Environmental Impact Analysis), and the dig permit (MAFB Form 199) review. The land use notification process allows the MAFB Environmental Element to document/verify that proposed land use activities are in compliance with the ICIP.

Representatives of CEAN attend and contribute to both the WORB and dig permit meetings. The Community Planner attends all FB meetings and is presently working with the IDP contractor in website development. The Community Planner is a key person in land use planning process having significant knowledge of which MAFB properties will be included in the ICIP.

#### 2.3.1 Facility-Wide Sustainable Implementation Plan

Land use planning at MAFB is governed by the IDP, and, to a lesser extent, MAFB Instruction 32-1002 (1 November 2001) (Appendix C). The IDP is a working document that will be updated as the Wing Commander makes changes. The IDP represents a comprehensive, facility-wide, and systematic approach to strategic planning at MAFB that addresses land use, facilities, infrastructure, cultural resources, and natural resources. ICIP property boundary maps have been completed; however, groundwater plume maps are likely to change as further investigation and/or remediation is conducted.

Future changes in current IRP land usages will conform to industrial use (IU) only. The IU designation precludes all residential uses, schools, day-care centers, playgrounds, and pools. In addition, groundwater usage is limited to wells designated for monitoring (sampling) and soil and groundwater treatment. Activities involving earth work such as excavation, grading, boring, coring, dredging, drilling, and trenching are restricted and will be controlled and monitored through the dig permit, Form 332 (work order), and Form 813 (environmental review) processes.

The ICIP will be updated as additional sites are added, ICs are modified or deleted, and associated maps updated. Site-specific ICs identified in this document will be made available to all MAFB offices that contribute to IC development and facility-wide land use decision making (civil engineering, planning, real estate, contracting, legal, security, and on-site contractor offices) via the IDP website. The accessibility of this information to key personnel will facilitate current and future recognition, evaluation, and resolution of potential conflicts in land use at sites included in this document. The Wing Commander will sign the ICIP, thereby establishing the Wing Commander's full authority behind the ICIP document.

When a new Wing Commander is assigned to MAFB, the Wing Commander's Approval page (Page i) signature block will be modified to reflect the new Wing Commander's name. After the Wing Commander reads the ICIP, he will be asked to sign the modified Wing Commander's Approval page and then substitute it back into the Page i position. By signing the Wing Commander's approval sheet, the new Wing Commander is establishing his/her full authority behind the ICIP document.

#### 2.3.2 Facilities Board (New Construction Only)

In addition to the IDP, MAFB Instruction 32-1002, entitled *McConnell AFB Facilities Board*, governs land use planning associated with new construction (MAFB 2001). The Wing Commander is the chair of the FB that oversees all proposed construction or unit relocations at MAFB. The Wing Commander runs the FB meetings and makes final decisions as to what does or does not get done at the base. The FB includes the Base Community Planner. The Base Community Planner presents site information to the FB including environmental hazards and restrictions on land use.

Prior to FB meetings, the Community Planner presents the location of proposed buildings and infrastructure projects (e.g., roads, sidewalks, sewer lines) to the 22 CES/CEAN. The 22 CES/CEAN evaluates the proposed buildings and infrastructure projects and presents back to the Community Planner. The Base Community Planner presents site information in the FB including environmental hazards and restrictions on land use.

#### 2.3.3 Dig Permits, Work Order Review Board, and Form 813

Dig Permits, Forms 813, and Work Orders (Form 332) are used as tools for notifying 22 CES/CEAN of pending/planned projects and field work at MAFB. This notification process allows 22 CES/CEAN to evaluate proposed projects and to make determinations regarding potential unresolved environmental issues such as land use restrictions. Dig Permits, Forms 813, and Work Orders offer an additional and overlapping layer of protection for active maintenance of and compliance with ICs established at a site under the HSWA Part II RCRA permit.

Site and facilities work, such as utility work, construction activities, building/structure demolition, and drilling, require AF Form 332 (Work Order Request). A Form 332 is used most often for small construction and maintenance projects. Once submitted, the request goes through an approval process prior to initiation of the work. The Base Community Planner, knowledgeable of facility-wide ICs, serves on the WORB and is involved in the review of all work order requests. The Base

Community Planner and a representative from the Environmental Element, knowledgeable of the ICIP, serve on the WORB.

After a work order is approved and issued, a Dig Permit (MAFB Form 199) is required prior to performance of any excavation that penetrates more than six inches below ground surface. Work orders and dig permits will not be approved if the proposed activities violate the conditions of the ICs. The work order and dig permit process not only provides another layer of protection for established ICs, but provides the contractor(s) performing the work with notification of site-specific IC requirements. Prior to initiating construction activities at sites with ICs where soil or groundwater is impacted, a project kick-off meeting will be held between the contractor and 22 CES/CEAN to discuss the details, hazards, and ICs associated with the proposed construction. At this briefing, the contractor and associates will be provided with a technical memorandum which identifies the nature of hazards, risks necessitating the ICs, safety precautions to be followed by the contractor during construction activities, and restrictions on material handling and disposal (soils and groundwater). 22 CES/CEAN also participates in design reviews for sites with ICs.

In addition to the work order and dig permit process, AF Form 813-Request for Environmental Impact Analysis, contributes to the land use planning process and represents another tool to identify and maintain ICs at MAFB. A Form 813 would be used on larger projects such as construction of a new building, major street repairs, or runway improvements. In some cases involving National Environmental Policy Act requirements, a Form 332 can be used to initiate a Form 813 should the reviewer decide that a more detailed analysis for environmental impacts is required. If ICs exist on the proposed project site, that fact will be noted on the form.

MAFB will notify USEPA and KDHE when potential projects interfere with an approved remedy, regardless of whether land use changes.

#### 2.3.4 Geographic Information System

IC information and site coordinates will be incorporated into MAFB's environmental geographic information system (GIS) drawings and will identify the locations where ICs will be implemented. As ICs are added, removed, or modified, GIS drawings will be updated as appropriate. As previously discussed, the ICIP will be web-based, and the IDP will be referenced/discussed in the Planning Considerations – Environmental Constraints section. Revised ICIP documents will be placed on the IDP web-site.

#### 3.0 INSTITUTIONAL CONTROLS IMPLEMENTATION

#### 3.1 Description of IRP Sites with Institutional Control Remedies

The IRP sites, that have ICs as a component of the interim or final remedy to protect receptors from residual contamination at MAFB, are identified in Appendix A. The information presented includes:

- Site identification;
- Site description;
- Contaminants detected at the site;
- Site location and boundaries;
- Site status (level of investigation or remediation that has been performed at the site); and
- ICs applied to the site.

#### 3.2 Implementation Process

MAFB will implement the ICs identified in this ICIP by:

- Complying with Part II.17 of the HSWA RCRA Permit (obtaining regulatory approval of this plan);
- Incorporating site-specific ICs into the IDP through the ICIP;
- Incorporating the site-specific ICs into a decision document (each IRP site has or will have in the future its own site-specific decision document; Statement of Basis) prepared for each site (if not already prepared); and
- Obtaining regulatory approval of the decision document.

#### 3.3 Maintenance and Enforcement

MAFB will maintain and enforce ICs included in this ICIP through:

- Periodic site inspections/monitoring/reviews as described in Section 3.4;
- Continued requirements for work orders, dig permits, and requests for environmental impact analysis as described in Section 2.3;
- Periodic USAF and regulatory agency reporting as described in Section 3.4;
- Amendment of ICs and incorporation of these amendments/updates into the ICIP and subsequently the IDP as IRP sites are added, removed, or IC requirements are modified to better address site conditions as described in Section 3.7;

- Establishment of procedures for notification of major land use changes and conveyance of government-owned property to other owners as described in Sections 3.6 and 3.8;
- Documentation and notification of IC violations to MAFB and regulatory agencies in accordance with procedures described in Section 3.5;
- Institution of site access controls (posting of warning signs as appropriate); and
- For off-base properties that are affected by contamination from MAFB (e.g., Site FT-06 and SWMU 207), MAFB will provide a notification letter informing the owner about the nature and extent of contamination. Note: MAFB has already notified property owners.

#### 3.4 Annual Inspection Procedures

To maintain, document, and track IC compliance, each site identified in Appendix A will be routinely monitored and inspected from initial implementation through termination. Periodic monitoring and inspection will be used to verify that appropriate ICs are in place. A physical visit to the sites with ICs will be performed to verify land use and to inspect the site for operation and maintenance of remediation equipment, prohibit installation of wells intended for non-environmental uses; and verify digging, trenching, and excavation activities. IC inspections will be conducted on at least an annual basis as part of the MAFB Environmental Compliance Assessment and Management Program auditing process, unless a decision document calls for more frequent visual inspections at a specific site. Inspections at recreational sites will be conducted quarterly.

After the ICIP is finalized, MAFB will conduct an initial IC implementation inspection to confirm that signage and other requirements of each ICIP are in place. Following the initial inspection, MAFB will conduct annual visual monitoring inspections of sites listed in Appendix A. The purpose of the inspections is to evaluate whether the current land use remains in place, is well maintained, and is protective and consistent with the corrective measures or corrective action objectives outlined in the site-specific decision documents and ICIP. An example checklist that could be used during annual visual IC site inspections is included in Appendix B.

The MAFB Environmental Element in Asset Management (22 CES/CEAN) is responsible for implementation of inspections (one inspection per year per IRP site) in accordance with the ICIP. The point of contact (POC) is:

Mr. Cole Knight Restoration Program Manager 22 CES/CEAN 53000 Hutchinson Street, Suite 109 McConnell Air Force Base, Kansas 67221-3617

Telephone: 316-759-3887 E-mail: cole.knight@us.af.mil

MAFB will document the details of the inspection, deficiencies identified, and implementation of the corrective measures, and provide a summary report to USEPA and KDHE within 14 days of the inspection.

The inspection report will also serve to notify the USEPA and KDHE of changes in POC or land use that are not considered major as described in Section 3.6 of this document.

#### 3.5 Reporting of Institutional Control Deficiencies/Violations to USEPA

In most circumstances, IC deficiencies will be discovered during site monitoring or inspection activities. Upon discovery, the site inspector or a representative of the site inspector will document and initiate corrective action(s) to bring the IC back to compliance. Within 72 hours, MAFB will notify USEPA Region VII and KDHE of the nature of the IC deficiency and the corrective actions being taken. Within seven days, MAFB will submit written documentation detailing the IC deficiency discovered, corrective actions initiated to address the IC deficiency, and steps taken by the base to address regulatory agency communications regarding the IC deficiency.

#### 3.6 Notifications of Major Land Use Changes

The following constitutes the definition of a major change in land usage:

- Change in land use (e.g., from industrial-grounds maintenance worker to industrial-indoor worker) that is inconsistent with the specific exposure assumptions in the human health or ecological risk assessments that served as the basis for the ICs implemented at a site.
- Any activities conducted at the base that may lead to contaminant plume expansion or migration.
- Site activities that may disrupt the effectiveness of the IC. For example, excavation at a landfill; groundwater pumping that may impact a pump-and-treat system; a construction project that may impact ecological habitat protected by the remedy; removal of a fence; disruption of a barrier; unlocking of a gate; or removal of warning signs and natural conditions such as flooding or severe erosion.
- Any site activities intended to alter or negate the land use restrictions implemented at the site.

After this document is finalized, MAFB will implement the following notification and concurrence procedures for major land use changes as discussed in this section.

• Once a major change in land use occurs at MAFB, notification and concurrence procedures will be implemented at least 45 days (except in emergency situations) prior to implementation of a major change in land usage at sites subject to ICs under this ICIP. MAFB will provide written notification to USEPA and KDHE that a change is required and the rationale for the requested change. The purpose of the written notification is to obtain USEPA concurrence with the requested change. The change may require a re-evaluation of the selected remedy or implementation of additional measures to protect human health and the environment. Except in

an emergency situation, no major changes will be implemented until USEPA concurrence is obtained. In accordance with Condition II.17.2.4 of the MAFB HSWA Part II Permit, written advanced notifications of pending major changes in land use should be accompanied by a plan for mitigating any risks to human health or the environment caused by the change in land use.

- Upon receipt of MAFB notification of an anticipated major change in land use, the USEPA and KDHE will be requested to evaluate the information provided and respond within 30 days after receipt of the notification from MAFB of the change.
- MAFB will immediately notify USEPA and KDHE if, despite its best efforts to maintain compliance with ICs, major changes in land use were inadvertently discovered or were identified during surveillance activities, or the changes were not in accordance with the ICIP. Such notifications will provide information regarding the nature and extent of the change and describe measures implemented or planned, and a timetable for completion of the measures, to reduce or prevent human health or ecological impacts.
- MAFB will provide the specifics of the changes to key MAFB offices and personnel who are involved with revisions to the IDP, base planning, project design, and contractor construction processes including the FB.

Each MAFB notification of a change in land use and request for Agency (USEPA and KDHE) concurrence will include:

- An evaluation of whether the anticipated land use change will pose unacceptable risks to human health and the environment or resultant negative impacts to the effectiveness of the site remedy;
- An evaluation of the need for additional remedial actions or ICs resulting from implementation of the proposed major change; and
- A proposal for the adoption of changes in the selected site remedy. MAFB understands that changes in site remedies are the responsibility of the USEPA which issues decision documents.

#### 3.7 Modification or Termination of Institutional Controls

#### 3.7.1 Modification

ICs may require modification when site conditions change or when residual contaminant concentrations are reduced to the point where less stringent limitations on land use will still provide protection from the risk associated with the residual contamination. If MAFB makes the assessment that one of the sites included in the ICIP requires a modification in an IC, USEPA and KDHE will be notified and presented with a proposal of the modified IC. Justification for the modification will also be presented with the proposal. It is understood that modifications to ICs will require coordination with and approval from USEPA and KDHE. Once USEPA and KDHE have reviewed the IC modification proposal, the USEPA and KDHE will either approve/disapprove the modification or present MAFB with an alternative modification. Once approved, modified ICs will be incorporated into this document.

#### 3.7.2 Termination

ICs can be terminated at MAFB's contaminated sites when concentrations of contaminants of concern are below established cleanup objectives and the site itself has reached unlimited use/unrestricted exposure status. Another condition that would justify the termination of ICs would be if it is replaced by another remedy which could be another IC or a more active remedy. Before an IC is terminated, MAFB will notify USEPA and KDHE and request approval to terminate the IC. When an IC is terminated, all involved parties will be notified of the termination and the IC will be removed from the ICIP and all other registries and databases referencing the IC.

#### 3.8 Maintenance Following Future Property Conveyance

The USAF shall provide notice to the USEPA and KDHE at least six months prior to any transfer or sale of property containing ICs so the USEPA and KDHE can be involved in discussions to ensure that appropriate provisions are included in the transfer or conveyance documents to maintain effective ICs. If it is not possible for 22 CES/CEAN to notify the USEPA and KDHE at least six months prior to any transfer or sale, then 22 CES/CEAN will notify the USEPA and KDHE as soon as possible but no later than 60 days prior to the transfer or sale of any property subject to ICs. The USAF agrees to provide USEPA and the KDHE with such notice, within the same time frames, for federal-to-federal transfer of property accountability. The USAF will provide either access to or a copy of the executed deed or transfer assembly to the USEPA and KDHE. In accordance with Condition II.17.2.6 of the MAFB HSWA Part II Permit, MAFB is also required to outline the procedures that will be implemented for maintaining ICs during and after transfer of any property covered by an IC to another owner.

In the event contaminated property is conveyed to non-governmental entities, a notification process will be established that will involve the use of a proprietary control (e.g., restrictive covenant) where the property deed/title specifies that the property may have contamination from past MAFB activities and defines the ICs in place to protect human health and the environment from site contamination. The deed/title will also state that the new owner is to maintain the established ICs for the long-term protection of human health and the environment from exposure to known site contamination. In addition, since the conveyance of land requires that an Environmental Impact Analysis Process or an Environmental Baseline Survey be accomplished, these documents will become a part of the real estate transaction and submitted to the appropriate legal authority overseeing the transaction. The restrictions or controls identified would then be drawn up in the new deed/title.

### 4.0 REFERENCES

MAFB, 2001. Instruction 32-1002, McConnell AFB Facilities Board. 1 November 2001.

USEPA, 2007. Final HSWA Part II Permit for McConnell Air Force Base, EPA RCRA ID No. KS1571924140, August 2007.

# **Figures**



By: SJ



Active Installation Restoration Program sites With Institutional Controls

# Appendix A

# List of Active Installation Restoration Program Sites with Institutional Controls

Site	Description	Figure No.
SS-01	Spill Site at Bulk Fuel Storage	A-1
SS-03	Spill Site Along East Side of Flight Line	A-2
SS-35	Spill Site at Former Building 2	A-3
SS-31 (SWMU 174)	Spill Site at Kansas Air National Guard Property On West Side of MAFB	A-4
SS-32 (SWMU 109)	Spill Site at Grass Covered Lot Southeast of the South End of the East Runway	A-5
SS-14	Former Auto Hobby Shop Spill Site at West Side of MAFB	A-6
FT-06	Former Fire Training Pit	A-7
FT-07	Former Fire Training Pit	A-8
LF-11	Former Landfill at Weapons Range	A-9
LF-33	Former Construction Landfill; Formerly SWMU 106	A-10
LF-34 (SWMU 163)	Municipal Waste Site at Building 1250; Running Track and Soccer Field	A-11
SS-02 (ST-17)	UST Leak at Building 430	A-12
SWMU 207	Solvent Plume Near Air Traffic Control Tower	A-13
Building 692	Multiple SWMUs, OWSs	A-14
Building 971	Northern Edge of the Bulk Fuel Storage Area in the Northeast Portion; New Fiscal Year 2010 Site	A-15
Building 980	Intersection of Independence Drive and Atchison Street Adjacent to the POL Yard; New Fiscal Year 2010 Site	A-16
TU-36	Underground Storage Tank No. 36; New Fiscal Year 2010 Site	A-17
MMRP TS355 (SWMU	Former Weapons Firing Range in the Southeast	A-18
164)	Portion of MAFB; New Fiscal Year 2010 Site	
Building 314	Retail/POV Gasoline Sales Site (Shoppette)	A-19
OW-971 (Building 12)	Former Hush House static jet engine testing facility	A-20
	oil/water separator; removed December 2008	
FT-04 (SWMU 116)	Former Fire Training Pit	A-21
OW633 (SWMUs 176	Building 41 Aircraft Wash Rack, OWS #K6 West of	A-22
and 184) and SS044	Building 41, and Building 49 Spill Site	

# APPENDIX A LIST OF ACTIVE INSTALLATION RESTORATION PROGRAM SITES WITH INSTITUTIONAL CONTROLS

In accordance with the Final Hazardous and Solid Waste Amendment Part II Permit for McConnell Air Force Base [United States Environmental Protection Agency Resource Conservation and Recovery Act ID No. KS1571924140, Condition II.17 Institutional Controls (ICs)], to protect human health and the environment, ICs will be implemented as a component of all remedies addressing contamination left on an Installation Restoration Program site at concentrations that do not allow for unlimited land use and unrestricted exposure to site contamination.

Site ID	Site Description	Site Contaminants	Site Location and Boundaries	Site Status	ICs Applied	Comments
SS-01	Spill Site 01 is located in the bulk fuel storage area in the northeast portion of MAFB. Aviation fuel has been stored at this location since the 1950s and two large spills were reported in the past. Site buildings include an administrative office, pump house, and small maintenance equipment storage building. The site is placarded and access is restricted.	<b>GW:</b> TCE, cis-1,2-DCE, vinyl chloride, benzene <b>SO:</b> BTEX, TCE, cis-1,2-DCE, vinyl chloride, trimethylbenzene	Figures 2-1 and A-1.	Remedial injections are taking place as interim measures. Site is undergoing LTM.	*	
SS-03	Spill Site 03 is located in the north central portion of MAFB within the Flight Maintenance Compound. Fuel pipelines are located in the subsurface. Solvent storage tanks and piping have been located in the area. Pipeline leaks were reported in the past. A groundwater pump and treat system remains in place, but is not currently operating. Access to the site is currently restricted.	GW: PCE, TCE, cis-1,2- DCE, vinyl chloride, TPH-GRO SO: TCE, vinyl chloride	Figures 2-1 and A-2.	An oxygen infusion system installed near Building 1104 is in place as interim measures. Remedial injections are planned as interim measures. Site is undergoing LTM.	*	Pump and treat system is not currently operating. The oxygen infusion system is currently in operation and planned to continue throughout injections.
SS-35	Spill Site 35, the former Building 2 site, is an open grassy lot located on Jayhawk Drive south of the MAFB Southwest Gate and north of the Air Capital Museum. Prior to the 1970s, the site was used as a facility to refuel and repair airplanes and vehicles and thereafter used for fuel storage until demolition in 2003. Currently, access to the site is not restricted.	<b>GW:</b> Metals, polycyclic aromatic hydrocarbons	Figures 2-1 and A-3.	LTM has shown that corrective action objectives have been met.	*	A Draft Corrective Measures Completion Report has been completed that recommends site for unrestricted use / unlimited exposure status.

Site ID	Site Description	Site Contaminants	Site Location and Boundaries	Site Status	ICs Applied	Comments
SS-31 (SWMU 174)	SS-31 is a 5.5-acre asphalt-paved parking lot and grassy area, located on Kansas Air National Guard property on the west side of the base, south-southwest of Building 31. Suspected petroleum-impacted soil was encountered during road expansion. Currently, access to the site is not restricted.	<b>GW:</b> Heptachlor Epoxide <b>SO:</b> Metals	Figures 2-1 and A-4.	Site Closure Investigation pending.	*#	
SS-32 (SWMU 109)	Spill Site 32 is a 13-acre maintained grass-covered field located southeast of the south end of the east runway. In the 1980s, asphalt and concrete batch plants were present. In the 1990s the site was used as a land farm for petroleum-impacted soil (gasoline, diesel, jet propulsion fuel grades 4 and 8) excavated from MAFB tank sites. Currently, access to the site is restricted.	<b>GW:</b> Metals <b>SO:</b> Naphthalene, antimony	Figures 2-1 and A-5.	Site Closure Investigation pending.	*#	
SS-14	Spill Site 14 is located in the northwest portion of MAFB near the Kansas Air National Guard and the flight line area. Prior to 1988, the site was a maintenance and auto repair facility (Building 16 Hobby Shop) for privately-owned vehicles. An underground oil tank located north of the hobby shop was removed in 1988 when the building was demolished. Currently, access to the site is not restricted.	<b>GW:</b> TCE, cis-1,2-DCE, vinyl chloride	Figures 2-1 and A-6.	Remedial injections are taking place as interim measures. Site is undergoing performance monitoring.	*	
FT-06	Fire Training Area 6 is a 15-acre mowed grass-covered field located in the southeast portion of the base near the property boundary, south of the golf course driving range. The site was used as a fire training area from 1958 to 1962. Groundwater was treated using an in-well Accelerated Remediation Technology, Inc.® system, but this system is no longer in use. Currently, access to the site is not restricted.	<b>GW:</b> TCE, cis-1,2-DCE, toluene <b>SO:</b> PCE, TCE, cis-1,2-DCE, and other non-chlorinated VOCs	Figures 2-1 and A-7.	Remedial injections are taking place as interim measures. Site is undergoing LTM.	*	
FT-07	Fire Training Area 3, (formerly MFT3 and now FT-07), is located southwest of the former Building 1318 within the southeast quadrant of MAFB. The site was used as a fire training facility from 1963 to 1971. Currently, access to the site is not restricted.	<b>GW:</b> TCE, cis-1,2-DCE, trans-1,2-DCE, vinyl chloride	Figures 2-1 and A-8.	Remedial injections are taking place as interim measures. Site is undergoing LTM.	*	

Site ID	Site Description	Site Contaminants	Site Location and Boundaries	Site Status	ICs Applied	Comments
LF-11	Landfill 11 is a grass-covered field located in the southeast portion of MAFB, west of the small arms range and south of the explosive ordnance disposal area. The site was operated as a landfill by trenching, filling, and burning from 1960 to 1970. A groundwater capture and treatment system with a 409-foot long groundwater capture trench is currently operational. Access to the site is restricted and placards are present.	GW: TCE, vinyl chloride, cis-1,2-DCE SO: TCE, vinyl chloride, cis-1,2-DCE, other non-chlorinated VOCs, and metals	Figures 2-1 and A-9.	Remedial injections are planned as interim measures. Site is undergoing LTM.	*	A groundwater capture and treatment system was installed in 1996. Accelerated Remediation Technology, Inc.® wells were installed in 2009. Both systems will be abandoned prior to injections.
LF-33 (SWMU 106)	Landfill 33 (SWMU 106) is a 5.5-acre undeveloped grass-covered field located near the southeastern corner of MAFB. McConnell Creek forms the eastern site boundary. LF-33 was used as a construction landfill for debris. Currently, access to the site is restricted.	<b>GW:</b> PCE, TCE, manganese <b>SO:</b> Naphthalene, PCE, TCE, antimony	Figures 2-1 and A-10.	Draft CMS completed. Additional groundwater monitoring, risk assessment, and annual inspections are planned.	*#	
LF-34 (SWMU 163)	Landfill 34 is a 3.5-acre grass-covered field located near the center of MAFB in an area that incorporates part of MAFB athletic fields (track and soccer). McConnell Creek forms the western site boundary. In 1992 during the construction of Building 1250, a pocket of trash including pottery shards and eating utensils was found. Currently, access to the site is not restricted.	GW: TPH-DRO, TPH-GRO, vinyl chloride SO: Non-chlorinated and chlorinated VOCs, SVOCs, TPH, metals	Figures 2-1 and A-11.	Remedial injections are taking place as interim measures. Site is undergoing LTM.	* ^	
SS-02 (ST-17)	Spill Site 2 (ST-17) is located at the corner of Kansas and Topeka Streets in the northeast portion of MAFB. Building 430 is currently used as an office building by the explosive ordnance disposal shop. A former gasoline station was adjacent to the site and underground storage tanks were located near the building. Currently, access to the site is not restricted.	GW: MTBE, benzene, TPH-DRO, TPH-GRO, naphthalene SO: Benzene, TPH-DRO, TPH-GRO, naphthalene	Figures 2-1 and A-12.	are taking place as interim measures. Site is undergoing LTM.	*	
SWMU 207 (SS544)	At SWMU 207, a carbon tetrachloride/TCE groundwater plume is present in the west-central portion of MAFB near the west end of taxiway "Charlie". SWMU 207 includes areas on both MAFB and property owned by the Boeing Company. Currently, access to the site is restricted.	<b>GW:</b> TCE, 1,1-DCE, carbon tetrachloride	Figures 2-1 and A-13.	Data Gap study in progress; CMS and Statement of Basis contract awarded; CMI planned.	*	

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Site ID	Site Description	Site Contaminants	and Boundaries	Site Status	ICs Applied	Comments
Building 692 (OT547)	Building 692, the Civil Engineering Pavement and Grounds Shop, is located in the northeast quadrant of MAFB on Hutchinson Court. Three oil-water separators (OWSs) (145, 151, and 202), a former wash-out pit, and one mud pit are associated with Building 692. The OWSs were used to collect spilled fluids during maintenance activities (small engine repair, tool cleaning). Currently, access to the site is not restricted.	GW: TCE, TPH-DRO, metals SO: Metals	Figures 2-1 and A-14.	Remedial injections are taking place as interim measures. Site is undergoing performance monitoring.	*	
Building 971 (SS548)	Building 971 is located at the northern edge of the bulk fuel storage area in the northeast portion of MAFB. Diesel fuel is stored at this location in a large outdoor aboveground storage tank and a small indoor day tank. A spill was reported in 2008. Fuel leaked to an adjacent drainage ditch. Currently, the site is placarded and access is restricted.	GW: TPH-DRO, TPH-GRO, benzene, naphthalene SO: TPH-DRO	Figures 2-1 and A-15.	RFI completed. Additional investigation in progress. Remedial injections are planned as interim measures.	*	Soil removal action in 2009 – 500 cubic yards of soil removed.
Building 980 (OW545)	Building 980 is an asphalt parking lot located west of the intersection of Independence Drive and Atchison Street. The site is adjacent to the POL yard and the bulk fuel storage area (Sites SS-01 and Building 971). Currently, access to the site is restricted.	<b>GW:</b> TCE, vinyl chloride, benzene, TPH-DRO, TPH-GRO	Figures 2-1 and A-16.	RFI in progress.	*	
TU-36	TU-36 is currently an open grassy lot located on Jayhawk Drive between SS-31 and SS-35. During installation of a new fiber optic cable, an underground storage tank was discovered. Currently, access to the site is not restricted.	GW: 1,2-DCA, TPH-GRO SO: TPH-GRO	Figures 2-1 and A-17.	Remedial injections are taking place as interim measures. Site is undergoing performance monitoring.	*	UST removed in 2009.

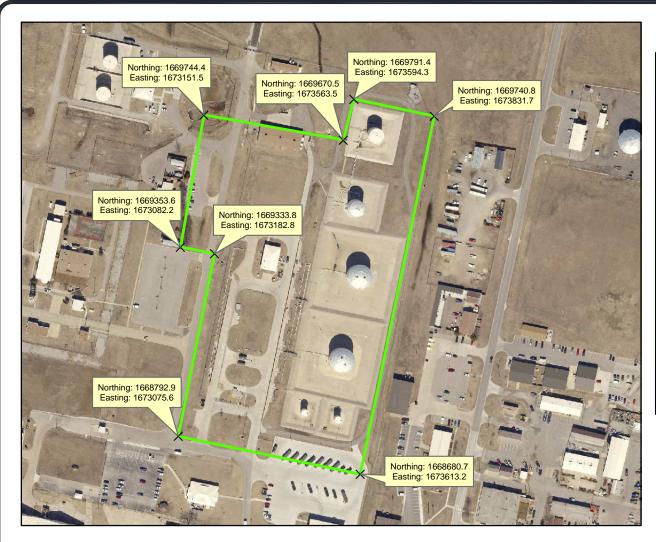
Site ID	Site Description	Site Contaminants	Site Location and Boundaries	Site Status	ICs Applied	Comments
MMRP TS355 (SWMU 164)	The 1.5-acre Former Weapons Firing Range (Military Munitions Response Program [MMRP] TS355), also identified as SWMU 164, is located adjacent to and north of the existing 25 Meter Firing Range. This site consists of what was formerly the northern half of the existing small arms firing range before it was shortened from 50 to 25 yards. The original eastern, western, and northern firing range berms were sampled, stabilized, removed and landfilled. Small arms ammunition casings were discovered. Currently, access to the site is not restricted. However, MMRP TS355 is currently inactive, and is classified as "closed range property".	SO: Lead	Figures 2-1 and A-18.	Comprehensive Site Evaluation Phase II is complete.	*	Removal action recommended for lead-impacted soil.
Building 314	Building 314 is located on the southwest corner of the intersection of Leavenworth and Wichita Streets on MAFB. The site is the MAFB general store and gas station. Three USTs are located near Building 314. Currently, access to the site is not restricted.	<b>GW:</b> BTEX, naphthalene, TPH-GRO	Figures 2-1 and A-19.	A groundwater treatment system is operating as a remedy.	*	
Building 12 (OW971 [OW-C558])	Building 12 former Hush House OWS was located on the Kansas Air National Guard (KANG) side of the Base near the end of Falcon Drive	GW: TPH SO: TPH	Figures 2-1 and A-20	Site Closure Investigation pending.	*	OWS removed in December 2008.
FT-04 (SWMU 116)	Fire Training Area 4 was located immediately northeast of Building 1393 in the Munitions Storage Area near the center of the Base. The 200 by 400-foot area was used on a short-term basis in 1972.	<b>GW:</b> Arsenic, SVOCs <b>SO:</b> Arsenic		Site Closure Investigation pending.	*	
OW633 and SS044	OW633 and SS044 overlap, and are located on the western side of the main runway in the area operated by the KANG. OW633 includes the former floor drains associated with an aircraft wash rack in Building 41 and former OWS #K6 located west of Building 41. SS044 is a petroleum spill site west of Building 49. Currently, access to these sites is not restricted.	<b>GW:</b> TCE, cis-1,2-DCE, vinyl chloride, TPH-DRO, TPH-GRO	Figures 2-1 and A-22	A Draft RFI has been completed. Remedial injections are taking place as interim measures. Site is undergoing performance monitoring.	*	

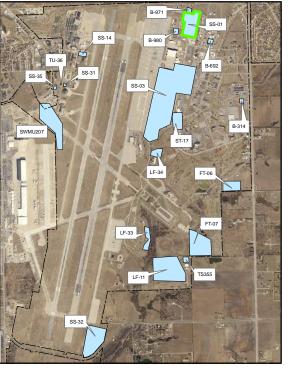
<sup>\*</sup> For all of the above sites, the following ICs are adopted:

- 1. Groundwater use restrictions groundwater usage limited to groundwater monitoring and treatment purposes only;
- 2. Land use restrictions land use is limited to current or IU usages;
- 3. Soil excavation restrictions subsurface intrusive activities are not allowed except for those expressly approved through the work order and dig permit processes;
- # No activities other than grounds maintenance can be performed on these sites without additional assessment of risks for new activities.
- ^ The current use at LF34 is recreational for outdoor physical education.

The ICs are adopted to protect human health and the environmental from residual contamination known to be present at each of the sites. The ICs will be enforced until such time that the concentrations of contaminants are documented to be below levels that pose an unacceptable risk to human health or the environment.

BTEX CMI CMS DCA DCE DRO FT FY GRO	Benzene, Toluene, Ethylbenzene, and Xylene Corrective Measures Investigation Corrective Measures Study Dichloroethane Dichloroethene Diesel Range Organics Fire Training Fiscal Year Gasoline Range Organics	KDHE LF LTM MAFB MMRP MTBE OWS(s) PCE	Kansas Department of Health and Environment Landfill Long-Term Monitoring McConnell Air Force Base Military Munitions Response Program Methyl Tert Butyl Ether Oil-Water Separator(s) Tetrachloroethene
GW ICs IU KANG	Groundwater Contamination Institutional Controls Industrial Use Kansas Air National Guard	POL RCRA RFI RI/FS ROD SO SS SVOC SWMU TCE TPH USEPA UST VOC(s)	Petroleum, Oil, Lubricant Resource Conservation and Recovery Act RCRA Facility Investigation Remedial Investigation/Feasibility Study Record of Decision Soil Contamination Spill Site Semivolatile Organic Compound Solid Waste Management Unit Trichloroethene Total Petroleum Hydrocarbon United States Environmental Protection Agency Underground Storage Tank Volatile Organic Compounds(s)





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#### Legend

IC Boundary

Installation area

Site Locations



### **TETRA TECH**

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1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

SS-01

ICIP
McConnell Air Force Base, Kansas

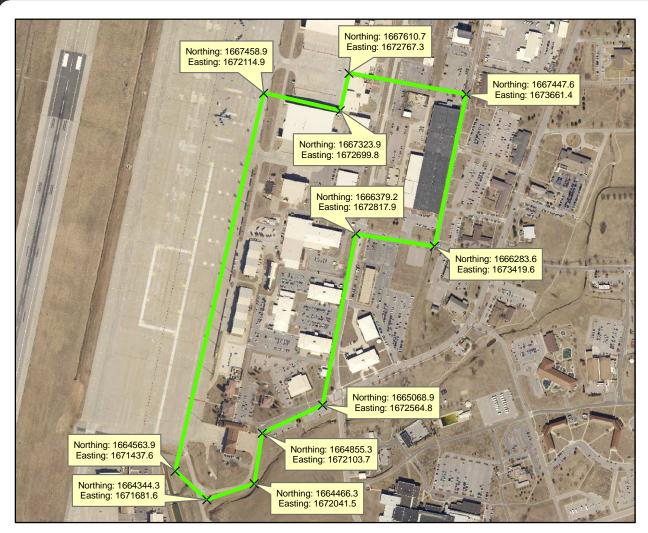
Project No.: T98781.0119

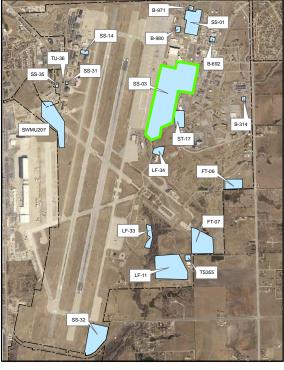
Date: July 2011

Drawn By: DEF

Figure Number







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#### Legend

IC Boundary

Site Locations

Installation area

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**TETRA TECH** 

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1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

SS-03

ICIP
McConnell Air Force Base, Kansas

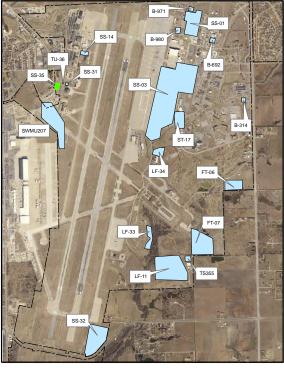
Project No.: T98781.0119

Date: July 2011

Drawn By: DEF

Figure Number





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#### Legend

IC Boundary

\_\_\_\_ Installation area

Site Locations



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1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

SS-35

ICIP
McConnell Air Force Base, Kansas

Project No.: T98781.0119

Date: July 2011

Drawn By: DEF

Figure Number





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DEF

#### Legend

IC Boundary

Installation area

Site Locations



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1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

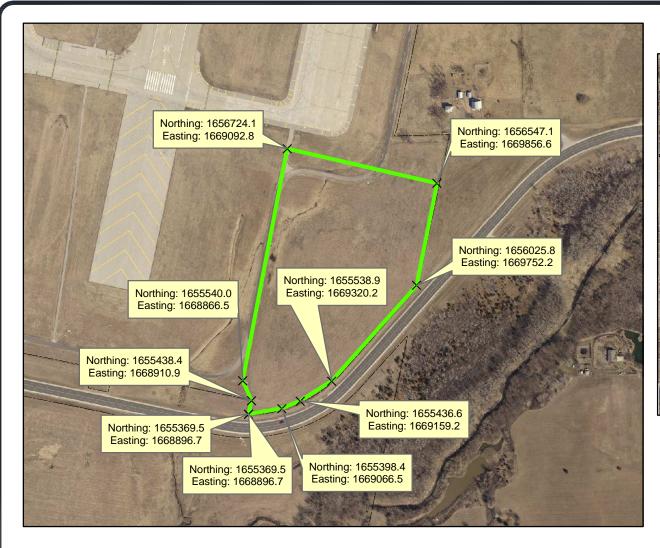
SS-31 (SWMU 174)

ICIP
McConnell Air Force Base, Kansas

Project No.: T98781.0119

Date: July 2011

Drawn By:
Figure Number





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#### Legend

IC Boundary

Installation area

Site Locations



www.tetratech.com

1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

SS-32 (SWMU 109)

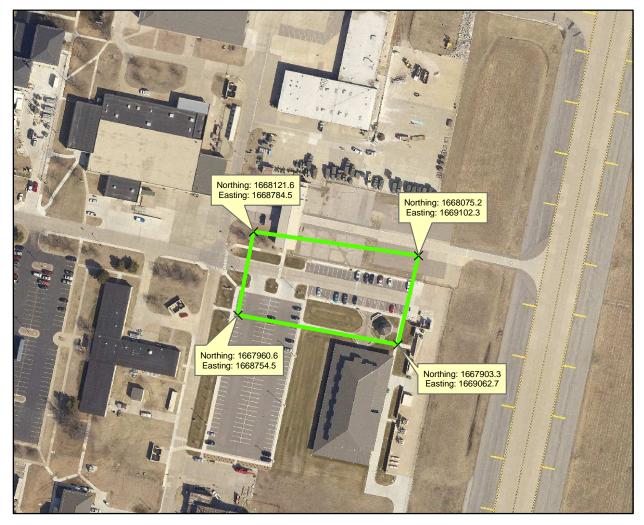
ICIP
McConnell Air Force Base, Kansas

Project No.: T98781.0119

Date: July 2011

Drawn By: DEF

Figure Number





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#### Legend

IC Boundary

Installation area

Site Locations



**TETRA TECH** 

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1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

SS-14

ICIP
McConnell Air Force Base, Kansas

Project No.: T98781.0119

Date: July 2011

Drawn By: DEF

Figure Number







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LUC Boundary

Installation area

Site Locations



1634 Eastport Drive

Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

FT-06

ICIP
McConnell Air Force Base, Kansas

Project No.: T98781.0119

Date: July 2011

Drawn By: DEF

Figure Number







# Legend

IC Boundary

Installation area

Site Locations



# **TETRA TECH**

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1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

FT-07

ICIP
McConnell Air Force Base, Kansas

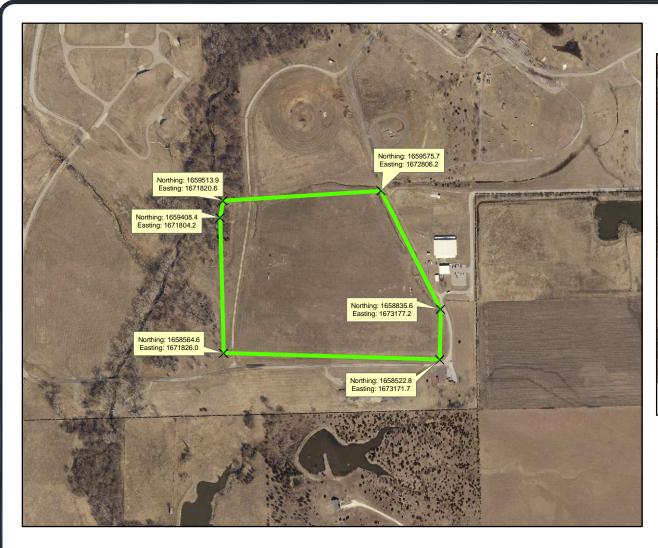
Project No.: T98781.0119

Date: July 2011

Drawn By: DEF

Figure Number







Drawn By:

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DEF

# Legend

IC Boundary

Installation area

Site Locations



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1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

LF-11

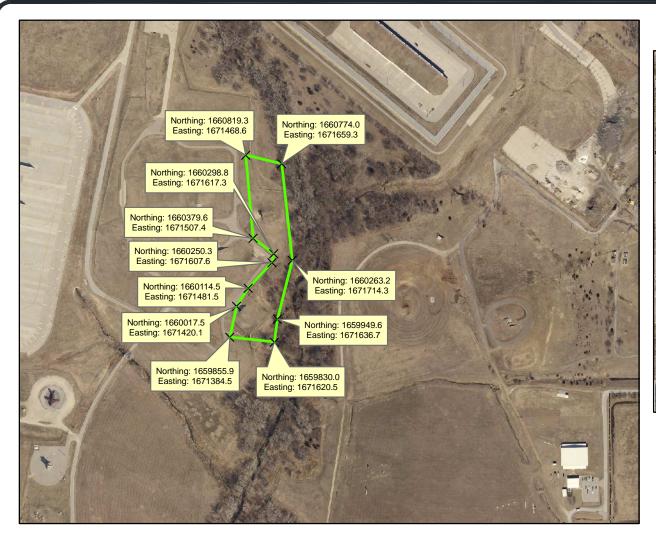
ICIP
McConnell Air Force Base, Kansas

Project No.: T98781.0119

Date: July 2011

Figure Number

**A-9** 





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# Legend

IC Boundary

Installation area

Site Locations



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**Drawing Description** 

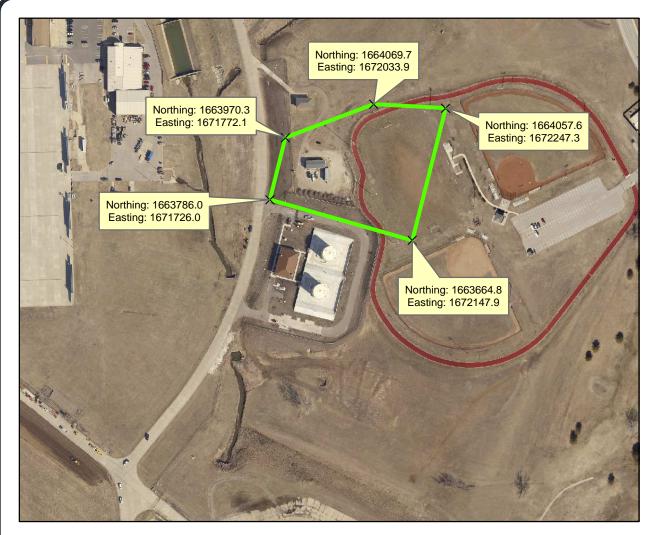
LF-33

ICIP McConnell Air Force Base, Kansas Project No. T98781.0119

July 2011 Date:

Drawn By: DEF

Figure Number







# Legend

IC Boundary

Installation area

Site Locations



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1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

LF-34 (SWMU 163)

ICIP
McConnell Air Force Base, Kansas

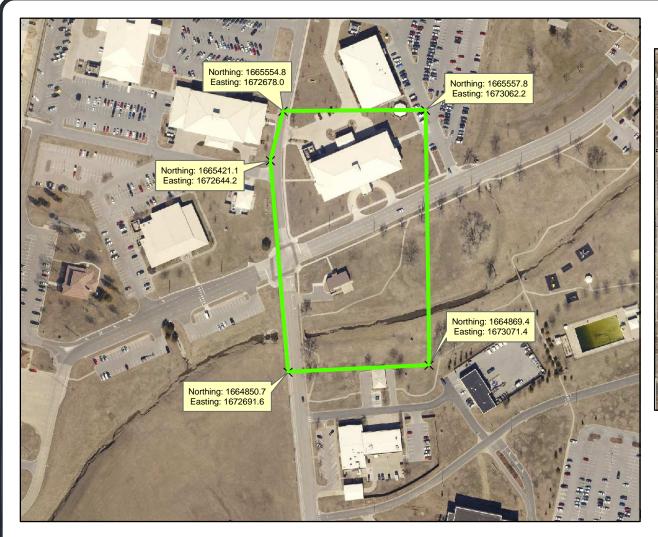
Project No.: T98781.0119

Date: July 2011

Drawn By: DEF

Figure Number







N

# Legend

IC Boundary

Installation area

Site Locations



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1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

SS-02 (ST-17)

ICIP
McConnell Air Force Base, Kansas

Project No.: T98781.0119

Date: July 2011

Drawn By: DEF

Figure Number

A-12

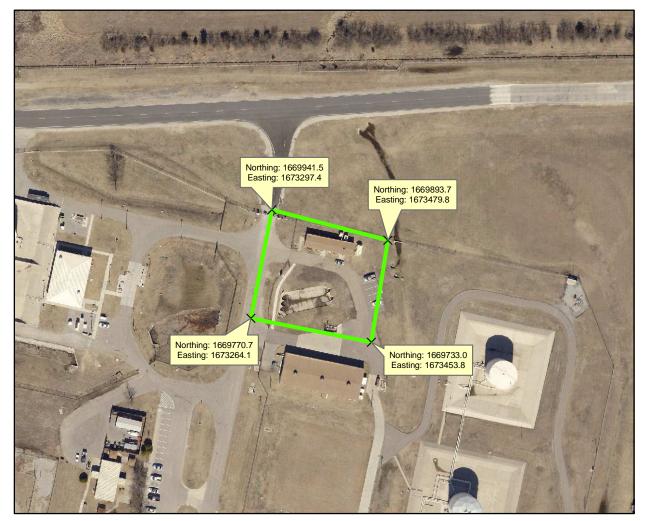
Figure A-13

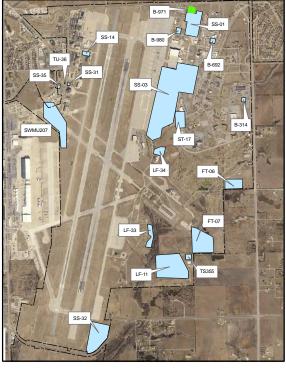
5/25/2016

Project No:

16170799

Figure A-14





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# Legend

IC Boundary

Installation area

Site Locations



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1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

B-971

ICIP
McConnell Air Force Base, Kansas

Project No.: T98781.0119

Date: July 2011

Drawn By: DEF

Figure Number

A-15

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iwn By: DPG

5/25/2016

Project No: 16170799

Figure A-16





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# Legend

IC Boundary

Installation area

Site Locations



**TETRA TECH** 

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1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

TU-36

ICIP
McConnell Air Force Base, Kansas

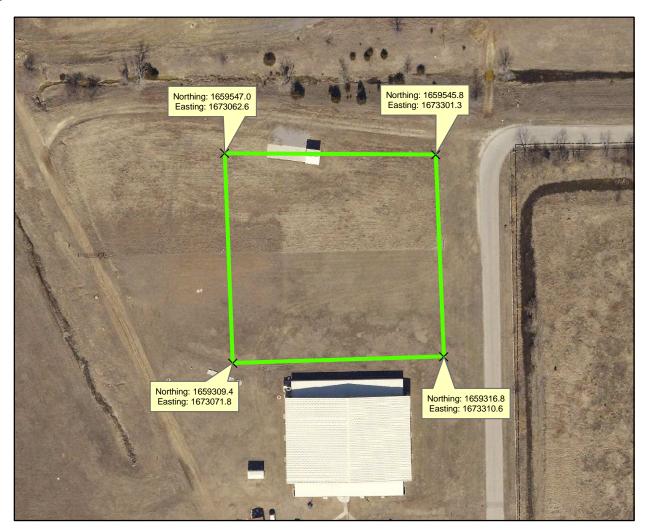
Project No.: T98781.0119

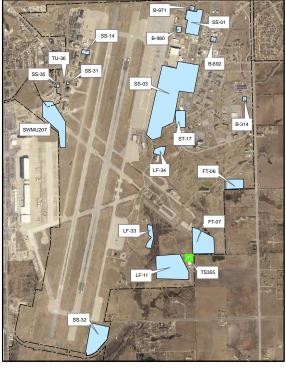
Date: July 2011

Drawn By: DEF

Figure Number

A-17





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# Legend

IC Boundary

Installation area
Site Locations

TETRA TECH

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1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

MMRP TS355 (SWMU 164)

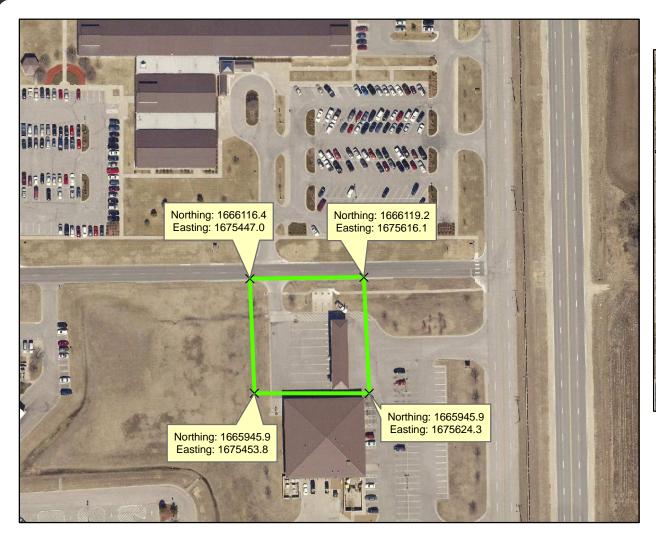
ICIP
McConnell Air Force Base, Kansas

Project No.: T98781.0119

Date: July 2011

Drawn By: DEF
Figure Number

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# Legend

IC Boundary

Installation area

Site Locations



**TETRA TECH** 

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1634 Eastport Drive Collinsville, IL 62234 PHONE: 618-345-0669 FAX: 618-345-1281 **Drawing Description** 

B-314

ICIP
McConnell Air Force Base, Kansas

Project No.: T98781.0119

Date: July 2011

Drawn By: DEF

Figure Number

Copyright: Tetra Tech

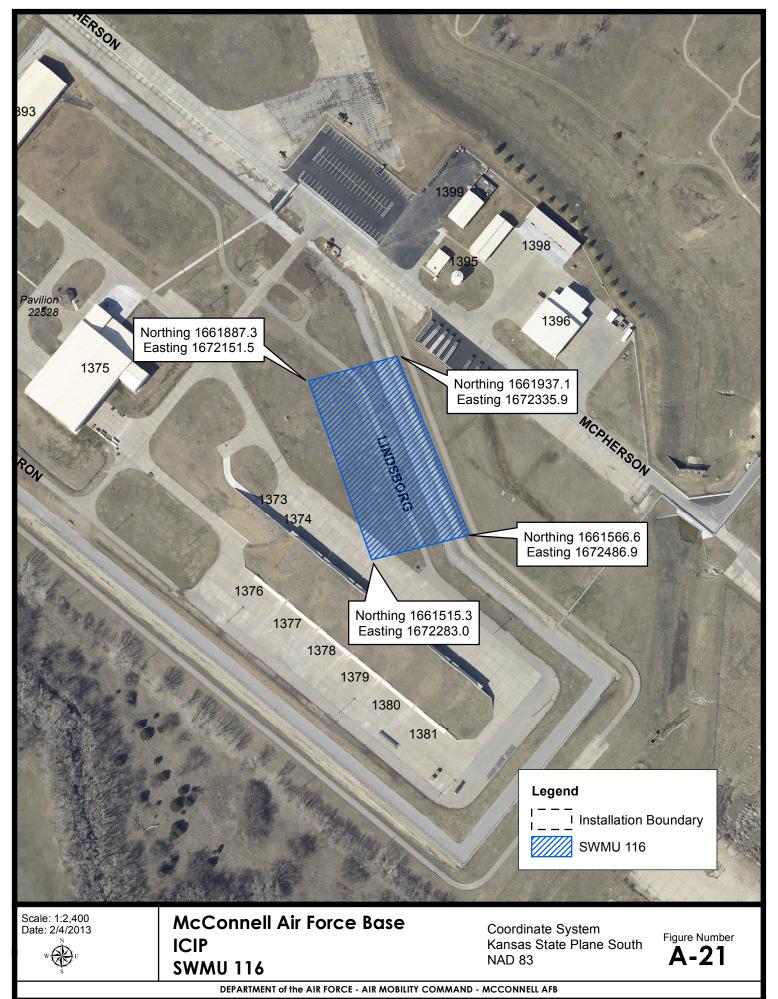


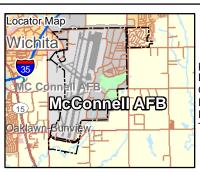
Scale: 1:2,400 Date: 2/4/2013

McConnell Air Force Base ICIP
OW-971 (BUILDING 12)

Figure Number

DEPARTMENT of the AIR FORCE - AIR MOBILITY COMMAND - MCCONNELL AFB





#### Legend

IC Boundary

μg/L = micrograms per liter DRO = diesel range organics GRO = gasoline range organics

IC = Institutional Control

ICIP = Institutional Control Implementation Plan

TCE = trichloroethene

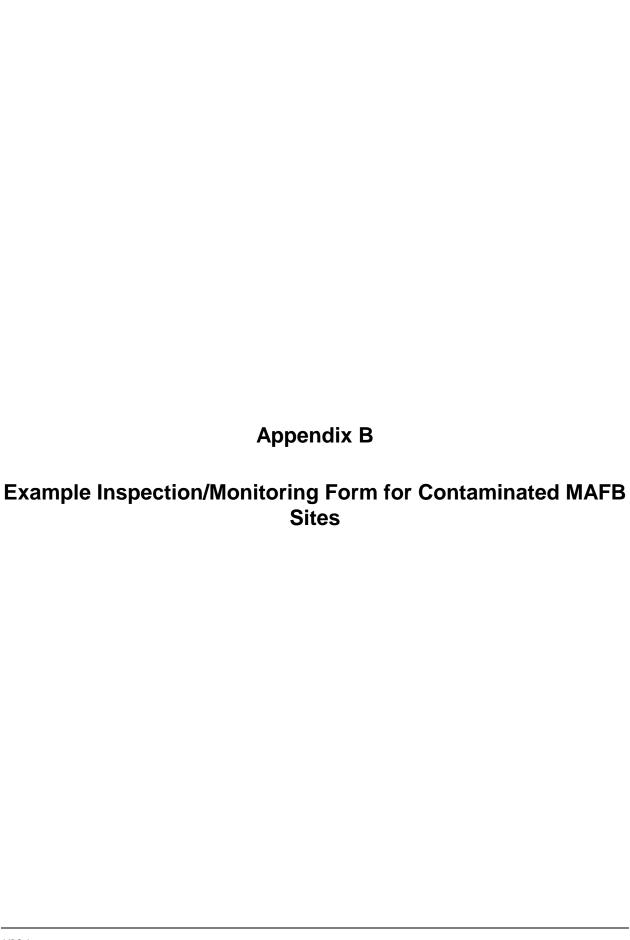


# OW633 and SS044 ICIP Boundary

McConnell Air Force Base, Wichita, Kansas

Figure A-22

Drawn By: DPG	Date: 5/25/2016	Project No:	
Checked By: RB	Revision: 0	16170799	



# EXAMPLE INSPECTION/MONITORING FORM FOR CONTAMINATED MAFB SITES

Waste Site:	
A = Satisfactory	Comments or Corrective Action Taken (See
X = Unsatisfactory (Comments Required)	Maintenance Register for Corrected Items)
NA = Not Applicable	
Check for potential encroachments (Ensure that there is no active construction on the site.)	
Does the site have brush or woody vegetation that needs cutting and disposal?	
Does the site need grass cut?	
Verify that the groundwater wells and roads are accessible.	
Are the groundwater wells properly locked?	
Is the concrete pad cracked or broken? Is the pad undercut or silted over (if applicable)?	
Are the groundwater wells properly identified?	
Verify that the groundwater well posts and protective covers are in place.	

### **Example Inspection/Monitoring Form for Contaminated MAFB Site**

	Comments or Corrective Action Taken (See
	Maintenance Register for Corrected Items)
,	

# **Example Inspection/Monitoring Form for Former Landfill Sites Used for Recreational Purposes**

Waste Site:  A = Satisfactory  X = Unsatisfactory (Comments Required)  NA = Not Applicable	Comments or Corrective Action Taken (See Maintenance Register for Corrected Items)
Are there any integrity problems associated with the landfill cover/athletic field surface?	
Does the athletic field surface show signs of excessive erosion? Are there any drainage problems noted? Are there areas on the field surface where cover crop (grasses) is not established?	
Are there any areas on the athletic field where there are obvious landfill content protrusions?	
Are there any obvious odors being generated by the former landfill site?	

Appendix B Example Inspection/Monitoring Form for Contaminated MAFB Sites June 2016

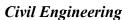
Inspected By:			Date/Time:	
	(Print Name)	(Signature)		
Reviewed By:			Date/Time:	
PM or Designee	(Print Name)	(Signature)		

Note: USEPA Region VII and KDHE must be notified within 14 days of identification of any area where any breach or compromise or comprise of restrictions placed on this institutional control operable unit has occurred.

# Appendix C

Instruction 32-1002
McConnell AFB Facilities Board

# MCCONNELL AFB INSTRUCTION 32-1002 1 NOVEMBER 2001



#### MCCONNELL AFB FACILITIES BOARD



#### COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction provides that McConnell Air Force Facilities Board and its working groups review and make decisions on effective use of real property facilities and base civil engineering resources. It implements AFI 32-10, paragraph 2.7.3, and applies to all personnel assigned to McConnell Air Force Base.

**1. Facilities Board** . Membership has been established by the Commander, 22d Air Refueling Wing (22 ARW/CC). Attendance at scheduled meetings is mandatory except when due to official absences. An appointed alternate will attend when the primary member is excused.

#### 1.1. Voting Members:

22d Air Refueling Wing Commander (Chairperson)	22 ARW/CC
22d Support Group Commander	22 SPTG/CC
22d Operations Group Commander	22 OG/CC
22d Logistics Group Commander	22 LG/CC
22d Medical Group Commander	22 MDG/CC
22d Air Refueling Wing Director of Staff	22 ARW/DS
22d Civil Engineer Squadron Commander	22 CES/CC
22d Chief of Wing Safety	22 ARW/SE
931st Air Refueling Group Commander	931 ARG/CC
184th Bomb Wing Commander	184 BW/CC
22 CES Operations Flight Chief	22 CES/CEO

1.2. Non-Voting Members:

22d Engineering Flight Chief	22 CES/CEC
22d Real Property Chief	22 CES/CERR
22d Bioenvironmental Engineer	22 ADOS/SGGB
22d Support Group Deputy Commander	22 SPTG/CD
22d Operations Support Squadron Commander	22 OSS/CC
22d Explosive Safety Officer	22 ARW/SEW
22d Comptroller Squadron Commander	22 CPTS/CC
22d Services Squadron Commander	22 SVS/CC
22d Mission Support Squadron Commander	22 MSS/CC
22d Security Forces Squadron Commander	22 SFS/CC
22d Communications Squadron Commander	22 CS/CC
22d Logistics Support Squadron Commander	22 LSS/CC
22d Medical Support Squadron Commander	22 MDSS/CC
22d Planning and Programming Chief (Recorder)	22 CES/CECP

- 1.3. Alternates: Each voting member will designate in writing an alternate to act for the primary member in his or her absence (Not required for deputies to group commanders).
- **2. Working Groups.** There are two working groups established under the Facilities Board. The chairperson of the Facilities Board working groups will be 22d SPTG deputy commander. Personnel who are not members of the Facilities Board may be appointed to a working group at the chairperson's discretion; however, a majority of the members must also be members of the Facilities Board or their alternates. The member or the officially designated alternate will attend meetings of the working group. Following are working groups of the Facilities Board:
  - 2.1. Real Estate Working Group (REWG): Reviews all matters concerning facilities utilization, leases, tenant agreements, and related items and makes recommendations to the Facilities Board. Reviews the base long-range Facilities Development Plan and makes recommendations to the base planner. The REWG will meet at the request of the chairperson. The REWG may appoint, as required, subcommittees to address related issues and make recommendations to the Group. Subcommittee chairpersons are designated by the REWG chairperson and the subcommittee will meet at the call of the chairperson. REWG members include:

22d Support Group Deputy Commander (Chairperson)	22 SPTG/CD
22d Operations Group Deputy Commander	22 OG/CD
22d Logistics Group Deputy Commander	22 LG/CD
22d Medical Group Deputy Commander	22 MDG/CD
22d Civil Engineer Squadron Deputy Commander	22 CES/CD
22d Communications Squadron Plans Flight Commander	22 CS/SCX

22d Air Refueling Wing Plans and Programs Chief	22 ARW/XP
931st Air Refueling Group Deputy commander	931 ARG/CD
184th Support Group Commander	184 SPTG/CC
22d Civil Engineer Squadron Operations Flight Chief	22 CES/CEO
22d Planning and Programming Chief	22 CES/CECP
22d Real Property Chief (Recorder)	22 CES/CERR

2.2. Planning and Programming Working Group (PPWG). Acts as a corporate review panel for community planning issues, reviews group project lists and makes recommendations to the Facilities Board. The PPWG will meet at the request of the chairperson. The PPWG may appoint, as required, subcommittees to address related issues and make recommendations to the PPWG. Subcommittee chairpersons are designated by the PPWG chairperson and the subcommittee will meet at the call of the chairperson. PPWG members include:

22d Support Group Deputy Commander (Chairperson)	22 SPTG/CD
22d Operations Group Deputy Commander	22 OG/CD
22d Logistics Group Deputy Commander	22 LG/CD
22d Medical Group Deputy Commander	22 MDG/CD
22d Civil Engineer Squadron Deputy Commander	22 CES/CD
22d Air Refueling Wing Plans and Programs Chief	22 ARW/XP
931st Air Refueling Group Deputy Commander	931 ARG/CD
184th Support Group Commander	184 SPTG/CC
22d Civil Engineer Operations and Maintenance Flight Chief	22 CES/CEO
22d Planning and Programming Chief (Recorder)	22 CES/CECP

2.2.1. Infrastructure Subcommittee (IS): The Infrastructure Subcommittee is a permanent subcommittee of the Planning and Programming Working Group (PPWG). It reviews all matters concerning infrastructure of the base and makes recommendations to PPWG. The IS meets as required at the call of the subcommittee chairperson. IS members include:

22d Civil Engineer Squadron Operations Flight Chief (Chairperson)	22 CES/CEO
22d Civil Engineer Squadron Engineering Flight Chief	22 CES/CEC
22d Civil Engineer Squadron Environmental Flight Chief	22 CES/CEV
22d Civil Engineer Squadron Maintenance Engineering Flight Chief	22 CES/CEOE
22d Civil Engineer Squadron Infrastructure Superintendent	22 CES/CEOI
22d Operations Support Squadron Airfield Operations Flight Chief	22 OSS/OSA
22d Logistics Support Squadron Commander	22 LSS/CC

**3. Meetings:** The Facilities Board will meet as often as required, but at least once each six months. Meetings will be called at the discretion of the chairperson. An agenda including minutes of the previous meetings will be called at the discretion of the chairperson.

ing and of the working group meetings will be forwarded to members 10 working days before each scheduled Facilities Board meeting. The Working Groups will meet 30 days prior to the FB meeting.

- **4. Responsibilities:** Responsibilities of the Facilities Board are identified in AFI 32-10.
  - 4.1. Review and act upon working group recommendations.
  - 4.2. Approve and establish priorities of projects comprising the Real Property Maintenance by Contract (RPMC) Program.
  - 4.3. Review, approve, and prioritize projects comprising the base Military Construction (MILCON) program.
  - 4.4. Approve sitting of new facilities and relocations of various organizations between facilities.
  - 4.5. Establish policies and plans for the future development of the base.

RONALD R. LADNIER, Colonel, USAF Commander, 22d Air Refueling Wing